

Piney Ridge Elementary

Science Fair

Thank you for your interest in the Piney Ridge Science Fair! We hope this project will be educational for your child but more importantly, we hope it will be a lot of fun and get your child interested in science. This handbook will explain what the Science Fair is all about.

Children are natural scientists and enjoy observing and questioning the world around them. We want to tap into this natural curiosity and foster a lifelong love for science. The skills used to analyze a scientific problem (such as observing, classifying, collecting data, measuring, graphing, and interpreting data) are skills that easily transfer to other subject areas.

The date for the Science Fair is set for the evening of Friday, November 6, 2009. Each student will make a display on a tri-fold poster board for this event, outlining his or her project. The tri-fold poster board is available at Walmart and possibly other stores. This year, we are keeping the Science Fair non-competitive. We are hoping to bring in scientists that will be able to talk with the students about their projects, so students will want to practice explaining their projects to parents and friends.

In this handbook, you will find an outline of the Scientific Method, some tips on what makes a good project, some resources to get help, and a sample project. For more information and resources please check out the Science Fair page on the PTA web site at www.pineyridgepta.net.

Any questions? Please contact Jeremy Cooper at 301-471-2644

The Scientific Method

A Science Fair project is a test or experiment you do to find an answer to a question. It is not research showing what you know about something. It is not a model, demonstration, or collection. Each project will follow the steps of the Scientific Method.

1. Question: What you want to find out. Select a variable (something you will change or vary) that will help you find the answer.
2. Hypothesis: Statement of what you think will happen in your test; a guess.
3. Materials: A list of items you will need to complete your experiment
4. Procedure: Step-by-step directions to conduct your experiment
5. Data: Collect and record data systematically showing what happened in your experiment. Use charts and/or graphs if necessary to organize and present your data.
6. Results: Statement interpreting your data
7. Conclusion: Answer your question. Was your hypothesis correct?

What Makes A Good Project?

1. Find a topic you are interested in
2. A good project is an experiment. Make sure you can do a test to find an answer to a question.
3. You can do the project with only a little help from your parents. Having someone else help too much takes some of the fun away and you do not learn as much.
4. Your project follows the format of the Scientific Method.
5. The experiment is repeatable. If possible, repeat your experiment. The more times your experiment is repeated, the more reliable your results are.
6. Tailor the experiment to your grade level and ability. A 1st and 5th grader could both tackle the question “What kind of soil is best for plant growth?” A 1st grader might use two different soil types where the 5th grader could use a variety of soils.
7. Create a neat display of your project showing that you used the Scientific Method.
8. Practice explaining your project to parents and friends.

Remember! Do not get upset if your experiment demonstrates that your hypothesis is incorrect. In the past, some of the most important experiments have been those where the hypothesis was proved incorrect.



Resources

Check out the public library.

The Internet is full of Science Fair information! A great place to get ideas is:

Science Fair Project Ideas: <http://www.all-science-fair-projects.com/>

Here are some more resources:

<http://school.discovery.com/sciencefaircentral/>

<http://homeworkspot.com/sciencefair/>

www.libraryspot.com/features/scienceprojects.htm

www.sciencebuddies.org

